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AF/3726

TRANSMITTAL LETTER			Case No. 10420/15
Serial No. 09/853,945	Filing Date May 11, 2001	Examiner Jermie E. Cozart	Group Art Unit 3726
Inventor(s) Imundo et al.			
Title of Invention Process for Repairing a Structure			

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is Amended Appeal Brief (in trip.); and return post card.

☐ Small entity status of this application under 37 CFR § 1.27 has been established by verified statement previously submitted.

☐ Applicant claims small entity status. See 37 CFR1.27.

☐ Petition for a _____month extension of time.

☒ No additional fee is required.

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	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Small Entity Rate	Small Entity Add'l Fee	or	Other Than Small Entity Rate	Other Than Small Entity Add'l Fee
Total		Minus			x $9 =			x $18 =	
Indep.		Minus			x 43 =			x $86 =	
First Presentation of Multiple Dep. Claim					+ $145 =			+ $290 =	
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☒ I hereby petition under 37 CFR § 1.136(a) for any extension of time required to ensure that this paper is timely filed. Please charge any associated fees which have not otherwise been paid to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

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Registered Representative

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March 23, 2004

Date of Signature

Our Case No. 10420/15

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Imundo et al.

Serial No. 09/853,945

Filing Date: May 11, 2001

For: Process for Repairing a Structure

Examiner: Jermie E. Cozart

Group Art Unit No. 3726

AMENDED APPEAL BRIEF

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TABLE OF CONTENTS

I. Real Party in Interest	3
II. Related Appeals and Inteferences	3
III. Status of Claims	3
IV. Status of Amendments	3
V. Summary of Invention	4
VI. Issues	5
VII. Grouping of Claims	5
VIII. Argument	6
IX. Appendix (Claims 1-22)	16

This is an appeal from the final rejections in the Office Action mailed on June 18, 2003 (Paper No. 11) for the application of Michael L. Imundo et al., and is timely filed in accordance with the Notice of Appeal mailed on October 20, 2003.

I. Real Party in Interest

The real party in interest is the assignee, United Air Lines, Inc.

II. Related Appeals and Interferences

There are no related appeals or interferences that would affect, be affected by, or have a bearing upon, the Board's decision in the present appeal in this application.

III. Status of Claims

Claims 1-22 are pending in this application. Claims 1-5, 7, 9, 10, 12-16, 18, 20, and 21 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 5,913,555 to Karl-Hermann Richter et al. ("Richter"). Claims 8, 11, 19 and 22 are rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 5,913,555 to Karl-Hermann Richter et al.("Richter") in view of U.S. Pat. No. 5,736,201 to Mary Flint ("Flint"). Claims 6 and 17 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent format including all limitations of the base claim and any intervening claims. Claims 6 and 17 do not form part of the present appeal.

IV. Status of Amendments

The last Amendment filed in this case was mailed by Appellants on August 18, 2003, in response to the final rejection. An advisory action mailed on September 2, 2003 advised that the amendment was refused entry because it raised new issues that would require further consideration and/or searching. A Request for Reconsideration of the Amendment was filed on September 17, 2003. An Advisory Action was mailed on September 29, 2003, advising that the amendment would not be entered because it raised new issues that would require further consideration and/or searching. No other amendments are pending.

V. Summary of Invention

The invention relates to a process for repairing a structure. The process includes setting up a measuring device to measure the part or portion of the structure to be repaired. Specification, p. 3, lines 5-6. The device for measuring is desirably a multi-axis measuring machine, having linear axes or rotary axes of motion. Specification, p. 3, lines 6-7. The device is set up and oriented so that the measuring device may measure and digitize data for the portion of the structure to be repaired. Specification, p. 3, lines 12-14. The method will work for parts in three dimensions, that is, parts requiring a length, width and depth in Cartesian coordinates, or parts that may be more conveniently measured in spherical or cylindrical coordinate systems. Specification, p. 3, lines 20-23.

The process preferably uses reference features on the structure to be repaired for orientation of the measuring device. Specification, p. 6, lines 11-12. In one example, a bulkhead station for a Boeing 737 aircraft has two orienting rivet holes just forward of the bulkhead and on the bottom skin of the aircraft which may be used to orient the measuring device. Specification, p. 6, lines 12-15. These points may serve as datums or points for orientation in measuring the part that needs to be repaired or replaced. Specification, p. 6, lines 15-18.

The device then measures the appropriate portion and stores the data in a convenient format. The data may be saved to an internal drive, or may be transferred to an external drive or even another computer. Specification, p. 3, lines 15-18. The data is then used to program at least one machine tool and automatically manufacture the needed repair part. Specification, p. 3, lines 18-20.

The measuring device is desirably a multi-axis coordinate measuring machine having at least one linear axis, and preferably having at least one rotary axis, and a probe. Specification, p. 5, lines 10-12. A preferred device has six axes of motion, three linear and three rotary. Specification, p. 5, lines 12-14.

The measuring device preferably uses a probe, such as a standard Renishaw probe or a laser probe, to measure points on the structure to be repaired. Specification, p. 5, lines 21-26. A user uses the probe to measure the part and then saves the data gathered. Specification, p. 5, line 30, to p. 6, line 3. The user then

`uses the data to manufacture the repair part using conventional manufacturing processes. Specification, p. 6, lines 3-9. The user then installs the repair part on the structure in need of repair. Specification, p. 6, line 10. The process is useful for repairing structures, which may include sheet-metal structures. Specification, p. 3, lines 25-32.

VI. Issues

The issues on appeal are as follows: 1) whether there is error in the final rejection of Claims 1-5, 7, 9, 10, 12-16, 18, 20, and 21 under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 5,913,555 to Karl-Hermann Richter et al.("Richter"); and 2) whether there is error in the final rejection of Claims 8, 11, 19 and 22 under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 5,913,555 to Karl-Hermann Richter et al.("Richter") in view of U.S. Pat. No. 5,736,201 to Mary Flint ("Flint").

VII. Groupings of Claims

The Claims do not stand or fall together with regard to rejections over the prior art. In order to separately consider a plurality of claims subject to the same rejection, the Appellants must state that the claims do not stand or fall together and present arguments why the claims are separately patentable. In re McDaniel, 63 U.S.P.Q.2d 1462, 1464 (Fed. Cir. 2002) (citing M.P.E.P. 1206 and 37 C.F.R. 1.192(c)(7)). Arguments for the claim groups listed below are presented in the arguments section. Accordingly, Appellants provide the following claim groups:

The patentability of Claims 1, 4, and 10 stand or fall together.
The patentability of Claims 2 and 13 stand or fall together.
The patentability of Claims 3 and 14 stand or fall together.
The patentability of Claims 5 and 16 stand or fall together.
The patentability of Claims 7 and 18 stand or fall together.
The patentability of Claims 8 and 19 stand or fall together.
The patentability of Claims 9 and 21 stand or fall together.
The patentability of Claims 11 and 22 stand or fall together.
The patentability of Claims 12, 15, and 20 stand or fall together.

VIII. Argument

iii. Rejections under 35 U.S.C. § 102. Arguments concerning the error in final rejections of the claims are presented in the order of the rejections. All references to the "office action" refer to the final office action mailed on June 18, 2003, paper No. 11.

Claim 1

Claim 1 has been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,913,555 to Karl-Hermann Richter ("Richter"). The rejection states that Richter discloses a method for repairing a sheet metal portion of a structure, wherein a multi-axis digital measuring device is oriented. Final Office Action, mailed June 18, 2003, p. 2, lines 11-13. The rejection states that the device captures the image of the structure in at least two dimensions in order to reproduce a portion of the structure with the digital imaging device, saving the data generated in measuring the structure, and using the data to manufacture a sheet metal repair part. Final Office Action, p. 2, lines 13-17. The rejection cites to col. 4, lines 38-59 of Richter for support.

This portion of Richter describes the use of a digital camera to capture planar data from a worn turbine blade, wherein "the existing actual geometry of the end of the remaining blade portion 2 at the standardized height h is measured." Col. 4, lines 38-40. The passage also states that, "a digital camera 10 captures the image of the end of the remaining blade portion 2 at the height h and provides data corresponding thereto to an image processing computer 11." Col. 4, lines 45-48.

This passage does not mention or disclose at least two steps in the method of appealed Claim 1. The steps not disclosed are the step of "orienting a multi-axis digital measuring device," and the step of "measuring in three dimensions at least a portion of the structure with the device." The passage cited above from Richter, col. 4, lines 45-48, clearly states a process of measuring in only two dimensions, not three. Therefore, this passage, and Richter, does not describe at least one step of the claimed process, "measuring in three dimensions."

Richter also does not describe or suggest the step of "orienting a multi-axis digital measuring device." As noted above, Richter describes using a digital camera. A digital camera 10 is shown in Fig. 5 of Richter, along with an image-processing computer 11. Richter, Fig. 5 and text at col. 4, lines 44-48. There is no description of orienting a "multi-axis digital measuring device" as claimed in Claim 1 of the present appeal.

Even if one construes a camera as having a moving lens with a single (linear) axis of motion, a camera cannot have more than one such axis of motion. The specification defines "a multi-axis measuring device" as one "having linear axes or rotary axes of motion." Specification, p. 3, lines 6-7. The specification also states that the "measuring device may be a multi-axis coordinate measuring machine 40, having a base 42 and at least one linear axis 44, and preferably having at least one rotary axis 46." Specification, p. 5, lines 10-12. In addition, "multi" means "more than one." Merriam-Webster's Collegiate Dictionary, 10th ed. at 764.

One of the privileges of applicants for a patent is that they may be their own lexicographers. So long as the meaning of an expression is made reasonably clear and its use is consistent within a patent disclosure, an inventor is permitted to define the terms of his claims; the place to do so is in the specification of the inventor's application, and the time to do so is prior to that application acquiring its own independent life as a technical disclosure through its issuance as a United States patent. *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889, 221 USPQ 1025, 1031 (Fed. Cir. 1984).

In this application, Applicants have defined in the specification a multi-axis digital measuring device as a device having more than one linear or rotary axes of motion. Richter does not describe a process using such a multi-axis digital measuring device. A digital camera is not a multi-axis digital measuring device. This step of the process is not described or disclosed in Richter, nor does Richter describe the process step of measuring in three dimensions.

Therefore, at least two steps of Claim 1 are not disclosed in the reference, the steps of "orienting a multi-axis digital measuring device," and "measuring in three dimensions at least a portion of the structure with the device." The reference does not anticipate the invention of Claim 1, and the final rejection of Claim 1 is error.

Claims 2 and 13

Claims 2 and 13 are rejected as anticipated by Richter. The rejection states that Richter discloses adding additional data for use in automatically manufacturing the repair part (4'), and that "the nominal geometry data of the blade (1) was at some point added to the computer in order to serve as a reference data when being compared with image data for the damaged part to be repaired." Office Action, p. 2, lines 17-20. The rejection does not cite a passage in Richter for this rejection. Richter does not describe or disclose adding additional data as part of the process for repairing a structure.

The rejection cites no particular passage from Richter, but a suitable passage may be found in the passage cited from col. 4, lines 38-59. Richter states, "a repair profile or repair part 4' is cut out of a suitable repair material so as to have a shape or contour exactly matching that of blade tip portion 4." Richter, col. 4, lines 53-56. Richter later states, "the thickness d of the sheet or plate essentially corresponds to the difference between the nominal height H of the finished or repaired blade 1 and the standardized height h of the stump or remaining blade portion 2." Richter, col. 4, lines 59-63.

These passages do not describe or suggest "adding additional data for use in automatically manufacturing the repair part." Claim 1 includes a step of "measuring in three dimensions at least a portion of the structure with the device." Claim 12 claims a process step of "measuring at least a portion of the structure with the device," after the step of orienting the multi-axis digital measuring device. Thus, data in a thickness or depth dimension, as described in Richter, does not constitute "additional data" according to Claims 2 or 13, because such data has already been gathered in the steps of appealed Claim 1 or Claim 12.

The meaning of "additional data" appears in the specification, on pp. 8 and 12. In referring to the step of measuring the part in need of repair, the specification states that measuring effort may be saved in not measuring features that were not subject to change over time, such as holes in a bulkhead that interface with other holes, such as on reinforcing panels or doublers. Specification, p. 8, lines 14-19. Thus, states the specification, data from the original design and manufacture may be used in place of measuring, by "adding additional manufacturing data to the

measured data." Specification, p. 8, lines 19-20. The specification also states on p. 12, lines 6-8, that "original manufacturing and inspection data may be used as a starting point for each feature that a user wishes to measure in using the method of the present invention."

Thus, the claim term "adding additional data" has been defined in the specification as "adding original manufacturing or inspection data" and is used to save time in taking measurements, not in taking basic measurements as required in Claims 1 and 12 of the present application. This use is not described or disclosed in Richter, and thus Richter does not anticipate Claims 2 and 13 of the present application. Appellants submit that it was error to finally reject Claims 2 and 13 of the present application.

Claims 3 and 14

The rejection states that Richter discloses "planning a process to manufacture the repair part (4'), which essentially are the steps used to create the repair part." Office Action, p. 2, last two lines. The rejection cites no passage in Richter to support this assertion.

The only details given by Richter are "specifically, as shown in Fig. 5, cutting of the contour of the repair profile 4' from the sheet of repair material is preferably carried out using a computer numerical control (CNC) 12 driven laser cutting apparatus 13 that is numerically controlled using the data acquired during the measurement of the actual blade geometry." Richter, col. 5, lines 3-8.

Appellants point out that manufacturing process planning, and the details of manufacturing process planning, are well known to those skilled in manufacturing engineering. A process plan is a very detailed, step-by-step process of how to accomplish the manufacturing. For instance, in the above process, one step would be to state that the repair part will be manufactured in a given department and perhaps on a given machine, using a particular set of tools and a particular CNC program. Richter does not describe or suggest any such step of "planning a process to manufacture the repair part."

Accordingly, Appellants urge that the final rejection of Claims 3 and 14 was in error.

Claims 5 and 16

Claims 5 and 16 are rejected, with the rejection stating that "Richter discloses orienting the device (10) with respect to the structure (2) via an orienting feature of the structure such as a feature (tip portion) of the structure." Office Action, p. 3, lines 3-5. The rejection does not cite a particular passage from Richter. The only mention of "orienting" in Richter is in col. 5, lines 31-36, where the repaired profile or part is "exactly positioned and oriented such that the . . . repair profile 4' is placed on the end of the remaining bade portion 2 in this proper position and orientation, and finally connected thereto."

Claims 5 and 16, however, are not for a simple step of "orienting," but rather specifically state that the step of orienting is for "orienting the measuring device with respect to the structure [to be repaired] via an orienting feature selected from the group consisting of plumb lines, orientation holes, a feature of the structure, and a feature of the portion [of the structure]." Richter does not disclose or suggest any of these limitations of the step of orienting.

Furthermore, Richter does not need to "orient" his digital camera to the structure, he needs only to take an image, and afterward, "the computer analyzes and processes the image data, while also comparing it to stored nominal geometry data." Richter, col. 4, lines 48-50. According, Richter does not describe or disclose the claimed step of orienting the device with respect to the structure to be repaired via an orienting feature, and it was error to finally reject Claims 5 and 16.

Claims 7 and 18

Claims 7 and 18 have been rejected over Richter, the rejection stating that Richter discloses automatically manufacturing comprising a multi-step process for material removal and material shaping. The rejection is on p. 3 of the Office Action, lines 6-8, citing Richter, col., 4, line 53 to col. 6, line 14. This passage from Richter discloses contour cutting (a material removal process) metal of thickness d, and then attaching the contoured part to the turbine blade to be repaired. Nothing in this passage states that more than one step is required.

In contrast, Claims 7 and 18 claim a multi-step process for material removal and material shaping. The specification for the present application discusses a

number of metal removal processes, such as milling and drilling, and also mentions forming processes, such as bending metal, or using a press brake, or using other forming processes better suited to non-metallic materials. Specification, p. 8, lines 2-9. According, Richter does not describe or disclose the claimed step wherein automatically manufacturing comprises a multi-step processes for material removal and material shaping. Therefore, it was error to finally reject Claims 7 and 18.

Claims 9 and 21

The rejection states that Richter discloses translating the data from a first format to a second format, in this case translating the image data to a corresponding output for the CNC control unit (12), and cites Richter, col. 4, lines 48-52. Office Action, p. 3, lines 9-11. The passage cited from Richter states that the

> computer analyzes and processes the image data, while also comparing it to stored nominal geometry data, and provides a corresponding output to a CNC-control unit 12, which accordingly controls a laser beam cutting apparatus 13 as will be described below.

Richter, col. 4, lines 48-52.

Thus, Richter does not disclose the limitation claimed in Claims 9 and 21, a step of "translating the data from a first format to a second format." The claim specifically states a step of "translating" from one format to another format, and the specification states specifically that application programs may use a translator between program languages. Specification, p. 10, line 32. to p. 11, line 2. The disclosure of Richter does not inherently disclose such a translator, since it is entirely possible for Richter's camera and Richter's CNC laser cutter to both run from the same programming language.

Accordingly, Appellants argue that Richter does not disclose this limitation and that it was error to finally reject Claims 9 and 21 of the present application.

Claim 12

Claim 12 has been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,913,555 to Karl-Hermann Richter ("Richter"). The rejection states that Richter discloses a method for repairing a sheet metal portion of a structure,

wherein a multi-axis digital measuring device is oriented. Final Office Action, mailed June 18, 2003, p. 2, lines 11-13. The rejection states that the device captures the image of the structure in at least two dimensions in order to reproduce a portion of the structure with the digital imaging device, saving the data generated in measuring the structure, and using the data to manufacture a sheet metal repair part. Final Office Action, p. 2, lines 13-17. The rejection cites to col. 4, lines 38-59 of Richter for support.

This portion of Richter describes the use of a digital camera to capture planar data from a worn turbine blade, wherein "the existing actual geometry of the end of the remaining blade portion 2 at the standardized height h is measured." Col. 4, lines 38-40. The passage also states that, "a digital camera 10 captures the image of the end of the remaining blade portion 2 at the height h and provides data corresponding thereto to an image processing computer 11." Col. 4, lines 45-48.

This passage does not mention or disclose at least two steps in the method of appealed Claim 12. The steps not disclosed include the step of "orienting a multi-axis digital measuring device." In addition, the step of "using said data to automatically manufacture a sheetmetal repair part" as a portion of a process to repair "a sheet metal portion of a structure" is not disclosed or described in Richter. The step of "orienting a multi-axis digital measuring device" is not disclosed in Richter, and was discussed above with reference to Claim 1.

The passage from Richter cited in the rejection, col. 4, lines 38-59, does not mention a sheetmetal part. The only part to be repaired that is discussed is a worn turbine blade. Richter, col. 3, lines 52-61. Appellants are unable to find in Richter any mention of "sheetmetal," "sheet-metal," or "sheet metal." Accordingly, Richter does not describe or suggest the claimed step of "using said data to automatically manufacture a sheetmetal repair part."

Therefore, at least two steps of Claim 12 are not disclosed in the Richter reference, the steps of "orienting a multi-axis digital measuring device," and "using said data to automatically manufacture a sheetmetal repair part." Richter does not anticipate the invention claimed in Claim 12, and the final rejection of Claim 12 is error.

iv. Rejections under 35 U.S.C. § 103(a). Arguments on the error in final rejections of the claims are presented in the order of the rejections.

Claims 8 and 19

Claims 8 and 19 of the present application were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 5,913,555 to Karl-Hermann Richter et al.("Richter") in view of U.S. Pat. No. 5,736,201 to Mary Flint ("Flint"). The rejection states that Richter discloses all the limitations of the method claimed in Claims 8 and 19 except for the step of transferring the repair part from a first station to a second station, while Flint discloses transferring an unfinished part from a first workstation to a second workstation in order to build a duplicate product and to match the color of the duplicated part to the original part. Office Action, p. 4, lines 1-13, citing Flint, Fig. 1 and cols. 2-3.

Therefore, states the rejection, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to transfer unfinished the repair part of Richter from a first workstation to a second workstation for additional finishing steps, in light of Flint, "in order to more effectively build a duplicate product and *match the color of the duplicated part to the original part.*" Office Action, p. 4, lines 14-18 (emphasis added).

The Examiner states that it is proper to combine Richter with Flint because both are concerned with "duplicating parts with by using digital cameras in combination with other devices . . . [s]ince both Richter and Flint are each concerned with duplicating parts in an effort to reproduce the original, then one of ordinary skill in the art would have been properly motivated to modify Richter based on the teachings of Flint thereby rendering applicant's invention obvious." Office Action, p. 6, line 16, to p. 7, line 2.

The rejection further states that both Richter and Flint disclose the use of a multi-axis digital measuring device, Richter disclosing the device and Flint using the device for measuring contours of a part to be repaired. Therefore, states the rejection, it would have been obvious to manufacture the part of Richter according to the teachings of Flint, rendering the invention obvious. Office Action, p. 7, lines 9-17.

Both Richter and Flint teach the use of digital imagery. Richter teaches refurbishing a turbine blade, in which Richter pays close attention to dimensions, but does not mention coloring or that it is important to "match the color of the duplicated part to the original part." Therefore, the Examiner's stated reason for combining the references is overcome and there is no *prima facie* case of obviousness because there is no motivation to combine the references. Accordingly, it was error to finally reject Claims 8 and 19 of the present application.

Claims 11 and 22

The rejection states that Claims 11 and 22 of the present application were rejected under 35 U.S.C. § 103(a) as unpatentable over Richter in view of Flint. The rejection states that Richter discloses all the claimed subject matter except for mounting a laser-scanning device on the multi-axis digital measuring device, wherein the laser is used to measure at least a portion of the structure with the multi-axis digital measuring device. The rejection states that Flint discloses "mounting a laser-scanning device, in order to record the topography of the object being scanned to produce a digitized signal, and that in Flint "[t]he laser is mounted on the multi-axis digital measuring device, wherein the laser is used to measure at least a portion of the structure with the multi-axis digital measuring device." Office Action, p. 4, lines 1-13.

Therefore, states the rejection, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to mount a laser-scanning device on the multi-axis digital measuring device of Richter, wherein the laser is used to measure at least a portion of the structure with the multi-axis digital measuring device, in light of the teachings of Flint, in order to accurately record the topography of the object being scanned to produce a digitized signal. Office Action, p. 4, lines 18-22.

Thus, the given motivation to combine is that the laser of Flint would accurately record, i.e., measure, the topography of the part to be repaired. However, in Richter, the topography is already fixed at height h, and there is no need to measure topography, i.e., the third dimension.

> This height h is specified **at a standard height h** so that in the repair of several turbine blades of the same turbine or compressor, **all of these blades will be cut off at the same height h**. Thus, the height h may be specified based on an inspection of all the worn blades 1 that are to be repaired and choosing the proper value of h so that even the largest damaged tip portion 4 among all the blades 1 will be removed.

Richter, col. 3, line 65, to col. 4, line 1 (emphasis added).

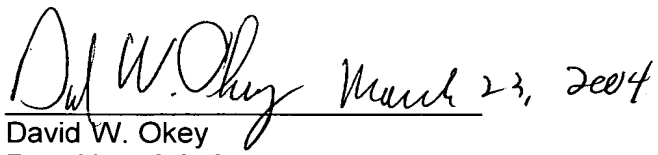
Thus, Richter has no need of topography, because a standard, fixed height is used. Accordingly, there is no need to add a laser scanner to Richter's digital camera, in order to accurately record the topography. There is no motivation to combine the references, and there is no *prima facie* case for obviousness because there is no motivation to combine. Therefore, the final rejection of Claims 11 and 22 under 35 U.S.C. § 103(a) is error.

CONCLUSION

In view of the above remarks, Appellants submit that the claimed invention is not unpatentably obvious over the references of record, and that the Office Action has not made out a sustainable case of obviousness for Claims 1-22. Accordingly, Appellants request reversal of the rejections of Claims 1-22 under 35 U.S.C. §§ 102(b) and 103(a). The reversal of all the rejections appears to be in order and is earnestly solicited.

The fee under 37 C.F.R. 1.17 (f) for filing this Appeal Brief is submitted with the accompanying transmittal.

Respectfully submitted,



March 23, 2004

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IX. Appendix Claims in the Application

1. (Original) A method for repairing a portion of a structure, comprising:
orienting a multi-axis digital measuring device;
measuring at least a portion of the structure with the device;
saving data generated in measuring the structure; and
using said data to automatically manufacture a repair part.

2. (Original) The method of Claim 1, further comprising adding additional data for use in automatically manufacturing the repair part.

3. (Original) The method of Claim 1, further comprising planning a process to manufacture the repair part.

4. (Original) The method of Claim 1, further comprising installing the repair part.

5. (Original) The method of Claim 1, further comprising orienting the device with respect to the structure via an orienting feature selected from the group consisting of plumb lines, orientation holes, a feature of the structure and a feature of the portion.

6. (Original) The method of Claim 1, further comprising mounting a mounting bracket for the multi-axis device on the structure.

7. (Original) The method of Claim 1, wherein automatically manufacturing comprises a multi-step process for material removal and material shaping.

8. (Original) The method of Claim 1, further comprising transferring the repair part from a first workstation to a second workstation.

9. (Original) The method of Claim 1, further comprising translating the data from a first format to a second format.

10. (Original) The method of Claim 1, further comprising a data manipulation step selected from the group consisting of exporting data, importing data, verifying data, and transferring data.

11. (Previously presented) The method of Claim 1, further comprising mounting a laser-scanning device on the multi-axis digital measuring device, wherein the laser-scanning device is used to measure at least a portion of the structure with the multi-axis digital measuring device.

12. (Original) A method for repairing a sheetmetal portion of a structure, comprising:
orienting a multi-axis digital measuring device;
measuring at least a portion of the structure with the device;
saving data generated in measuring the structure; and
using said data to automatically manufacture a sheetmetal repair part.

13. (Original) The method of Claim 12, further comprising adding additional data for use in automatically manufacturing the sheetmetal repair part.

14. (Original) The method of Claim 12, further comprising planning a process to manufacture the repair part.

15. (Original) The method of Claim 12, further comprising installing the repair part.

16. (Original) The method of Claim 12, further comprising orienting the device with respect to the structure via an orienting feature selected from the group consisting of plumb lines, orientation holes, a feature of the structure and a feature of the portion.

17. (Original) The method of Claim 12, further comprising mounting a mounting bracket for the multi-axis device on the structure.

18. (Original) The method of Claim 12, wherein automatically manufacturing comprises a multi-step process for material removal and material shaping.

19. (Original) The method of Claim 12, further comprising transferring the sheetmetal repair part from a first workstation to a second workstation.

20. (Original) The method of Claim 12, further comprising a data manipulation step selected from the group consisting of exporting data, importing data, verifying data, and transferring data.

21. (Original) The method of Claim 12, further comprising translating the data from a first format to a second format.

22. (Previously presented) The method of Claim 22, further comprising mounting a laser-scanning device on the multi-axis digital measuring device, wherein the laser-scanning device is used to measure at least a portion of the structure with the multi-axis digital measuring device.